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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/589,317

08/14/2006

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02/05/2009

EXAMINER

FULLER, ROBERT EDWARD

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3676

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/589,317	Applicant(s) MOSER ET AL.	
	Examiner ROBERT E. FULLER	Art Unit 3676	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 November 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's submission, filed November 13, 2008, has been carefully considered. Examiner has maintained some of the prior art rejections set forth in the previous Office Action, but has also added new prior art rejections. Examiner has also added new rejections under 35 U.S.C. 112. Therefore, this Office Action has not been made final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites both a "bulge/convex polygon outline" and a "rib." As understood by the examiner, the "bulge/convex polygon outline" and the "rib" both refer to the same thing (Fig. 2b has 13 and 14 pointing to the same part of the bit). However, the claim must be amended to make it clear that the rib and the outline are, in fact, the same thing.

Appropriate clarification and correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

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applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, and 5-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Huber (US 2006/0118341).

With regard to claim 1, Huber discloses a drilling tool (1), especially for percussion drilling, which comprises a cutting element (2) that is configured as a plate or head and that has at least one cutting edge (3) defined by a cutting face (5) and a free face (7), wherein the cutting edge is associated with a first free face section (see Figure 1 below) which lies in a cutting plane and is limited by a convex bulge or a convex polygon outline (see Figure 1 below), and wherein the vertical height of a rib (see Figure 1 below) defined by the first free face section and an associated first cutting face section appears to range from .1 mm to 1.0 mm. Note that, with respect to the above rejection under 35 U.S.C. 112, the claims are being examined as best understood by the examiner.

With regard to claim 2, the height of the rib appears to range from .1 mm to .5 mm.

With regard to claim 5, a second free face section follows the first free face section (see Exhibit A).

With regard to claim 6, Huber discloses a second free face section (see Exhibit A).

With regard to claim 7, an extension (see "V" in Exhibit A) extends in a direction of rotation (see "d" in Exhibit A) of the drilling tool through the cutting element below the cutting edge.

6. Claims 1, 2, and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Dunn et al. (US 6,595,305).

With regard to claim 1, Dunn discloses a drilling tool (150) for percussion drilling, which comprises a cutting element (162) that is configured as a plate or head and that has at least one cutting edge (184) defined by a cutting face (174) and a free face (160), wherein the cutting edge is associated with a first free face section (see Figure 1 below) which lies in a cutting plane, wherein the cutting plane (CP) is cut at a right angle to the cutting edge and is limited by a convex bulge (see Figure 2 below) or a convex polygon outline, and wherein the vertical height (H) of a rib (see Figure 2 below) defined by the first free face section and an associated first cutting face section (see Figure 2 below) ranges from 0.1 mm to 1.0 mm.

With regard to the ranges in both claims 1 and 2, the size of the rib falls within the claimed range, as the rib is only defined by a first free face section and an associated first cutting face section, and examiner can assign where the first free face begins in Dunn. Therefore, the first free face begins 0.5 mm below the cutting edge.

With regard to claims 5 and 6, Dunn discloses a second free face section and a second cutting face section (see Figure 2 below).

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With regard to claim 7, an extension (see "V" in Figure 2 below) of the second free face section extends in a direction of rotation of the drilling tool through the cutting element below the cutting edge.

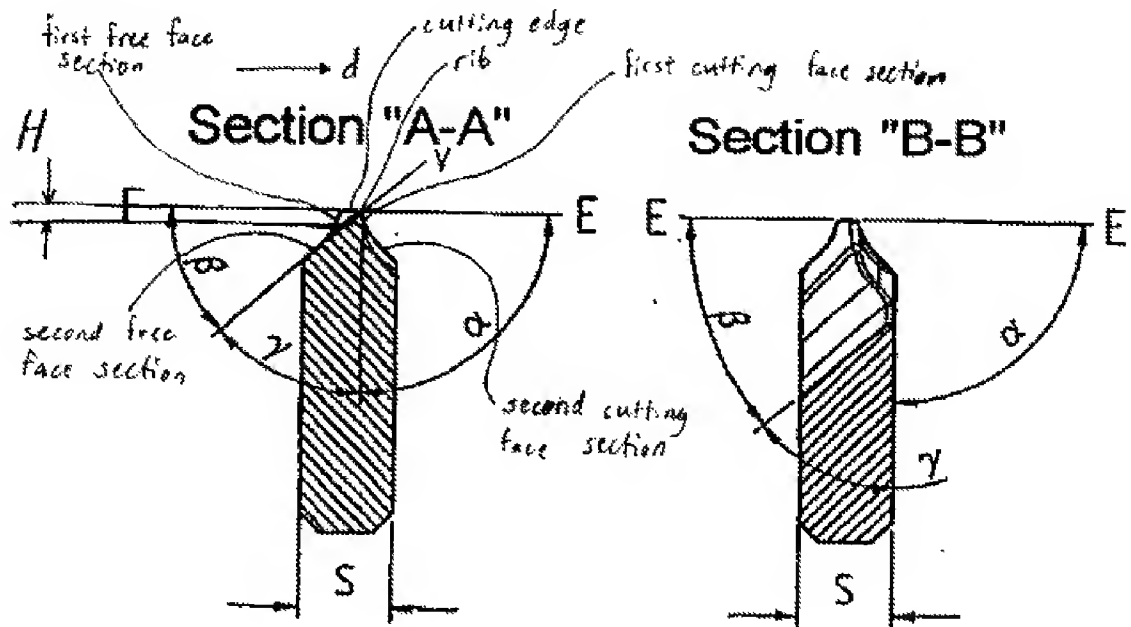


Fig. 4

Fig. 5

Figure 1 - Huber as it relates to the claimed invention.

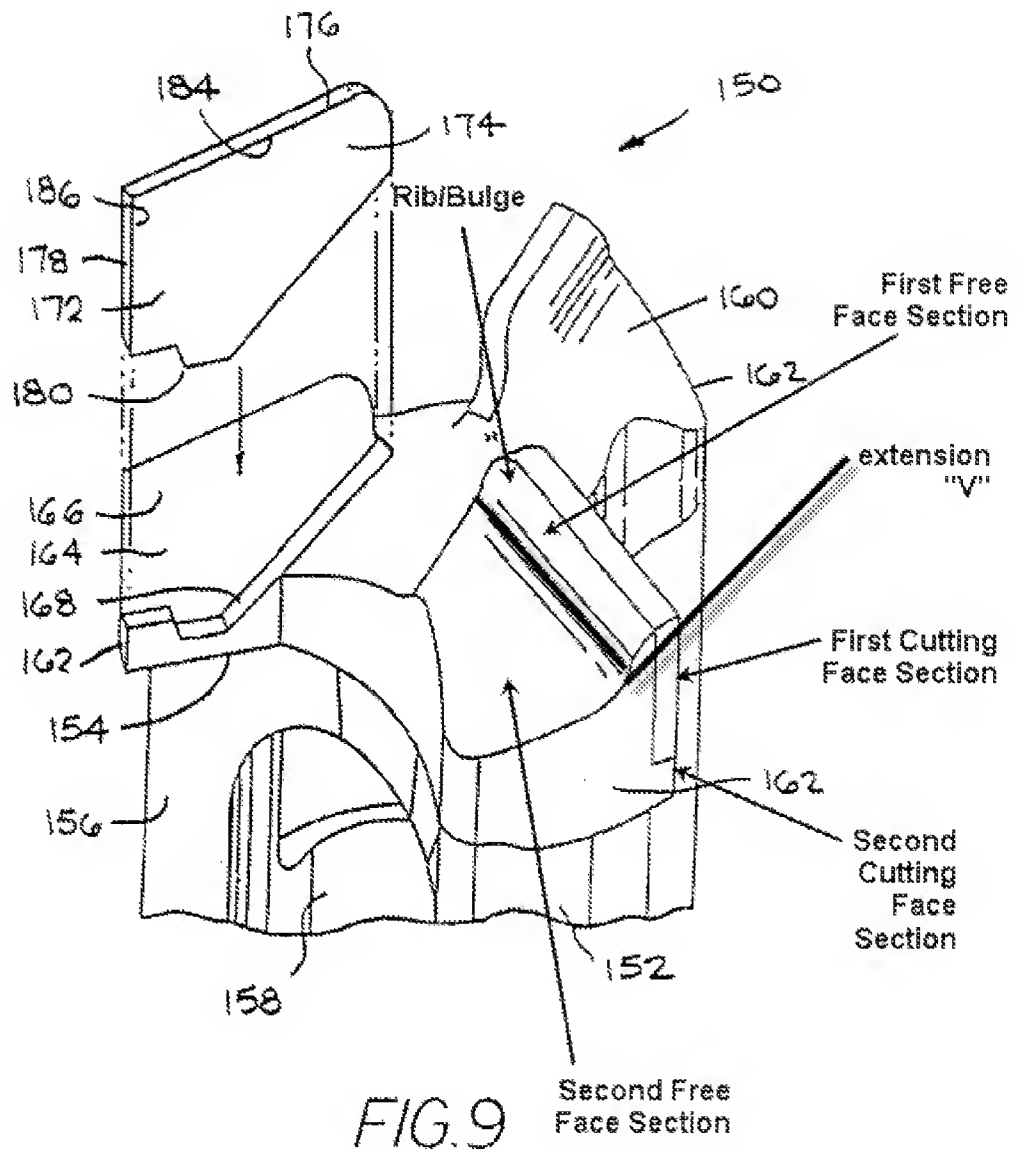


Figure 2 - Dunn et al. as it relates to the claimed invention.

Allowable Subject Matter

7. Claims 3 and 4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed November 13, 2008 have been fully considered but they are not persuasive. Applicant has argued that Huber discloses a chisel face and a rake face, rather than a cutting face and a free face, respectively. Examiner respectfully traverses this argument, since the claims do not describe the cutting face and the free face well enough to preclude Huber from reading on them. All the claim requires is a cutting edge, a cutting face, and a free face. Almost any drill bit cutting plate comprises these structural elements, since a plate necessarily has a cutting edge that must be bound by two faces on either side of it. Whether Huber calls these faces "chisel faces" or "rake faces" is immaterial. Figure 3 of Huber shows a top view of the cutting plate. According to examiner's understanding, to the left of plane A-A, the portion above the cutting edge (4) can broadly be considered a "free face" and what is below the cutting edge (4) can broadly be considered a "cutting face."

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT E. FULLER whose telephone number is (571)272-0419. The examiner can normally be reached on Monday thru Friday from 8:00 AM - 5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer H. Gay can be reached on 571-272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shane Bomar/
Primary Examiner, Art Unit 3676

02/02/2009
REF